

IN THE CLAIMS

Please replace claim 1 with the following amended version. For the Examiner's convenience, all pending claims are listed below.

1. **(Four Times Amended)** An isolated antibody which specifically binds to a polypeptide selected from the group consisting of:

- 9
- a) a polypeptide comprising the amino acid sequence of SEQ ID NO:1, SEQ ID NO:3, SEQ ID NO:5, or SEQ ID NO:7,
 - b) a polypeptide comprising a naturally-occurring amino acid sequence at least 90% identical to the full length of the sequence of SEQ ID NO:1, SEQ ID NO:3, SEQ ID NO:5, or SEQ ID NO:7, wherein said naturally-occurring amino acid sequence supports NADH dehydrogenase activity , and
 - c) an immunogenic fragment of a polypeptide consisting of at least 10 contiguous amino acid residues of an amino acid sequence selected from the group consisting of SEQ ID NO:1, SEQ ID NO:3, SEQ ID NO:5, or SEQ ID NO:7.

2. **(As Once Amended)** A composition comprising the antibody of claim 1 in conjunction with a suitable pharmaceutical carrier.

3. **(As Once Amended)** A method of preparing a polyclonal antibody with the specificity of the antibody of claim 1 comprising:

- a) immunizing an animal with the polypeptide of SEQ ID NO:1, SEQ ID NO:3, SEQ ID NO:5, or SEQ ID NO:7, or an antigenically-effective fragment thereof under conditions to elicit an antibody response; and
- b) screening for antibodies with the polypeptide thereby identifying a polyclonal antibody which binds specifically to the polypeptide of SEQ ID NO:1, SEQ ID NO:3, SEQ ID NO:5, or SEQ ID NO:7.

4. An antibody produced by a method of claim 3.
5. **(As Once Amended)** A composition comprising the antibody of claim 4 in conjunction with a suitable pharmaceutical carrier.
6. **(As Twice Amended)** A method of making a monoclonal antibody with the specificity of the antibody of claim 1 comprising:
- a) using the polypeptide of SEQ ID NO:1, SEQ ID NO:3, SEQ ID NO:5, or SEQ ID NO:7, or an antigenically-effective fragment thereof, to make antibody-producing hybridoma cells; and
 - b) screening for antibodies with the polypeptide, thereby identifying a monoclonal antibody which binds specifically to the polypeptide of SEQ ID NO:1, SEQ ID NO:3, SEQ ID NO:5, or SEQ ID NO:7.
7. A monoclonal antibody produced by a method of claim 6.
8. **(As Once Amended)** A composition comprising the antibody of claim 7 in conjunction with a suitable pharmaceutical carrier.
9. The antibody of claim 1, wherein the antibody is:
- (a) a chimeric antibody;
 - (b) a single chain antibody;
 - (c) a Fab fragment; or
 - (d) a F(ab')₂ fragment.
10. The antibody of claim 1, wherein the antibody is produced by screening a Fab expression library.

11. The antibody of claim 1, wherein the antibody is produced by screening a recombinant immunoglobulin library.

12. A method for detecting polypeptide of SEQ ID NO:1, SEQ ID NO:3, SEQ ID NO:5, or SEQ ID NO:7 in a sample comprising the steps of:

- 9
- a) combining the antibody of claim 1 with a sample under conditions to allow specific binding; and
 - b) detecting specific binding, wherein specific binding indicates the presence of polypeptide of SEQ ID NO:1, SEQ ID NO:3, SEQ ID NO:5, or SEQ ID NO:7 in the sample.

13. A method of using an antibody to purify polypeptide of SEQ ID NO:1, SEQ ID NO:3, SEQ ID NO:5, or SEQ ID NO:7 from a sample, the method comprising:

- a) combining the antibody of claim 1 with a sample under conditions to allow specific binding; and
 - b) separating the antibody from the protein, thereby obtaining purified polypeptide of SEQ ID NO:1, SEQ ID NO:3, SEQ ID NO:5, or SEQ ID NO:7.
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